Enabling the Fleet Integrated IT System Vision:
UII is the Key

Maintenance Figure of Merit (MFOM) PM
USFF N434
July 29 2009

United States Fleet Forces

Ready Fleet … Global Reach

Fleet's Vision

- ***Issue:***
  - Disjointed ILS life cycle process
  - Stove piped maintenance data systems
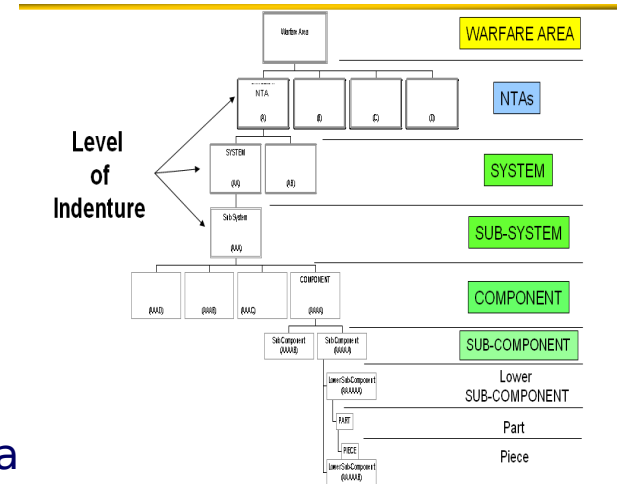
- ***Vision:***
  - Process and environment to facilitate <u>integrated</u> use of maintenance data
  - Satisfies BOTH acquisition and maintenance communities in the same system
  - Common system with a complete life-cycle view
    - Fed to Navy Readiness Reporting Enterprise (NRRE) data warehouse
    - Fed to Navy Maintenance community
  - Integration into the current maintenance process with minimal impact to the maintainer on the deck-plate. Data sharing between:
    - Classified and unclassified environments
    - Government and industry
    - Ashore and afloat (in garrison or deployed)
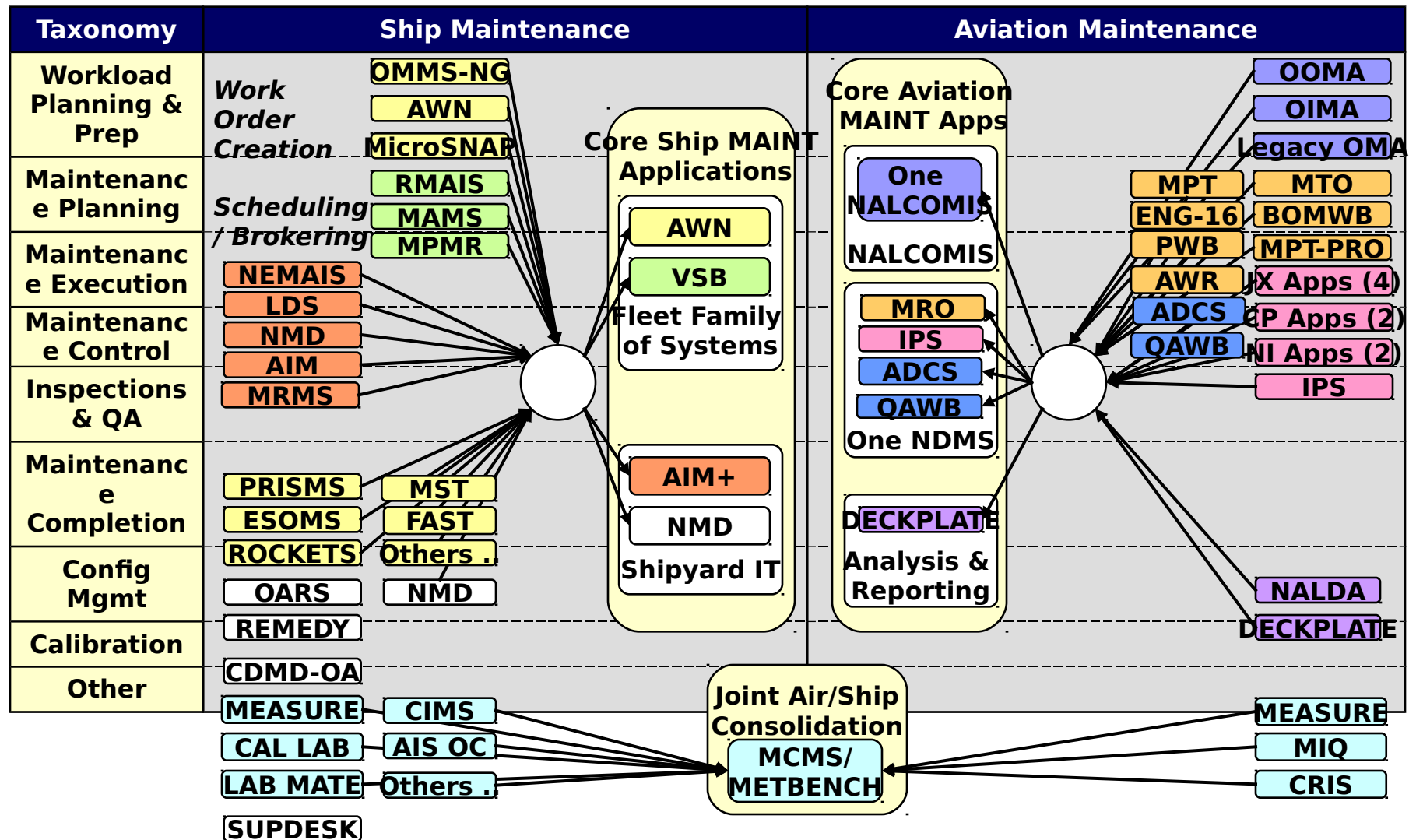
Common Data Principles

- **Bounded by 4 Guiding Principles**
  - Warfighter/customer focused
  - Helps use track cost to lower levels
  - Designated single technical authority
    - Equipment
    - System
    - Platform
  - Facilitate enterprise integration
    - Manage existing legacy and new data
    - Optimize sharing, reuse, and repurposing of data
    - Compliance with data security requirements
    - Improved data accuracy that is shared and mainta Cycle
    - Use open standards for interoperability and data exchange
    - Permit timely changes in product data for ships, aircraft, weapons, facilities and information systems
    - Provide for data sharing between classified and unclassified environments

Maintenance IT Vision

Taxonomy	Ship Maintenance	Aviation Maintenance

Ship Maintenance

Work Order Creation: OMMS-NG, AWN, MicroSNAP

Scheduling / Brokering: RMAIS, MAMS, MPMR

NEMAIS, LDS, NMD, AIM, MRMS

PRISMS, ESOMS, ROCKETS, OARS, REMEDY, CDMD-OA, MEASURE, CAL LAB, LAB MATE, SUPDESK

MST, FAST, Others ..., NMD

CIMS, AIS OC, Others ..

Core Ship MAINT Applications
- AWN
- VSB

Fleet Family of Systems
- AIM+
- NMD

Shipyard IT

Taxonomy rows:
- Workload Planning & Prep
- Maintenance Planning
- Maintenance Execution
- Maintenance Control
- Inspections & QA
- Maintenance Completion
- Config Mgmt
- Calibration
- Other

Core Aviation MAINT Apps

One NALCOMIS

NALCOMIS
- MRO
- IPS
- ADCS
- QAWB

One NDMS

DECKPLATE

Analysis & Reporting

Aviation Maintenance

OOMA, OIMA, Legacy OMA

MPT, ENG-16, PWB, AWR, ADCS, QAWB

MTO, BOMWB, MPT-PRO, X Apps (4), P Apps (2), NI Apps (2), IPS

NALDA, DECKPLATE

MEASURE, MIQ, CRIS

Joint Air/Ship Consolidation
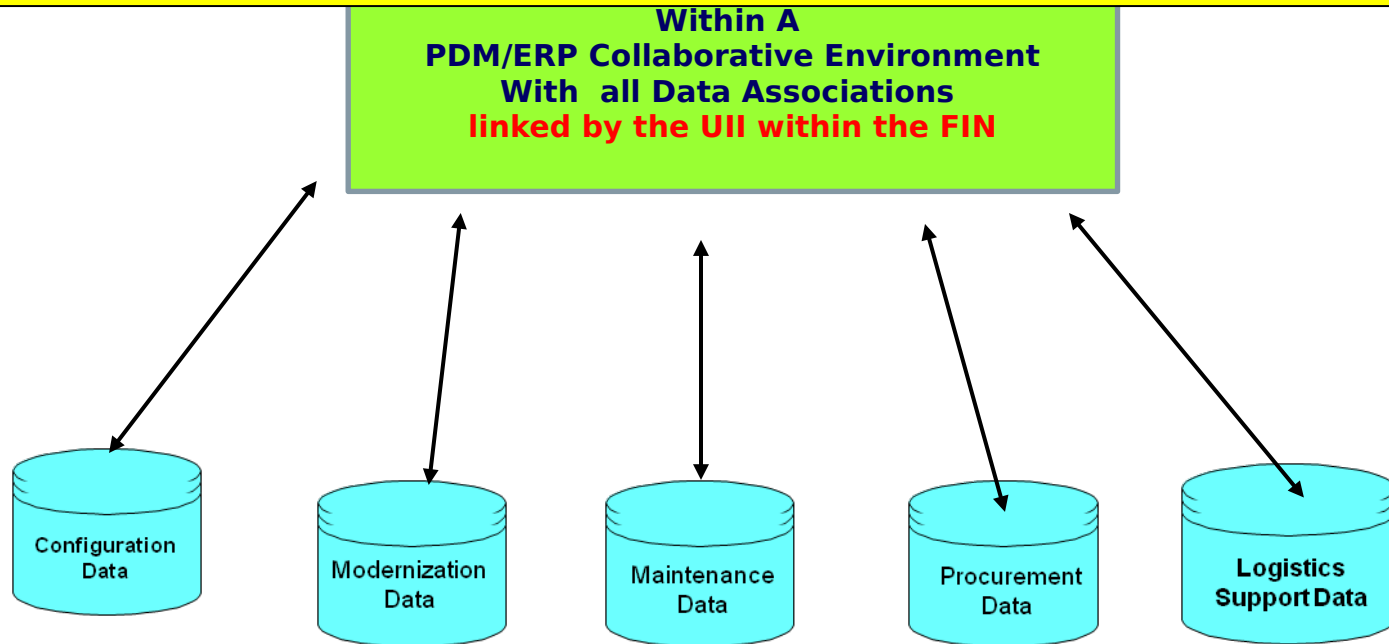MCMS/ METBENCH

Simplifying the IT Portfolio

- **Too many stove-piped applications**
  - 288 applications that deal with Product Data Management
  - 620 maintenance applications
- **We must collapse into common integrated solutions**
  - Configuration Management
  - Procurement/Supply (parts, materials)
  - Logistics Support (drawings, tech manuals, maintenance)
  - Equipment material history
    - maintenance
    - modernization

Database Collaboration

UII Provides the Key to Linking All Logistic Elements Enabling

- Serialized Item Management
- Item Material History
- Ability to use Warranty Data Effectively
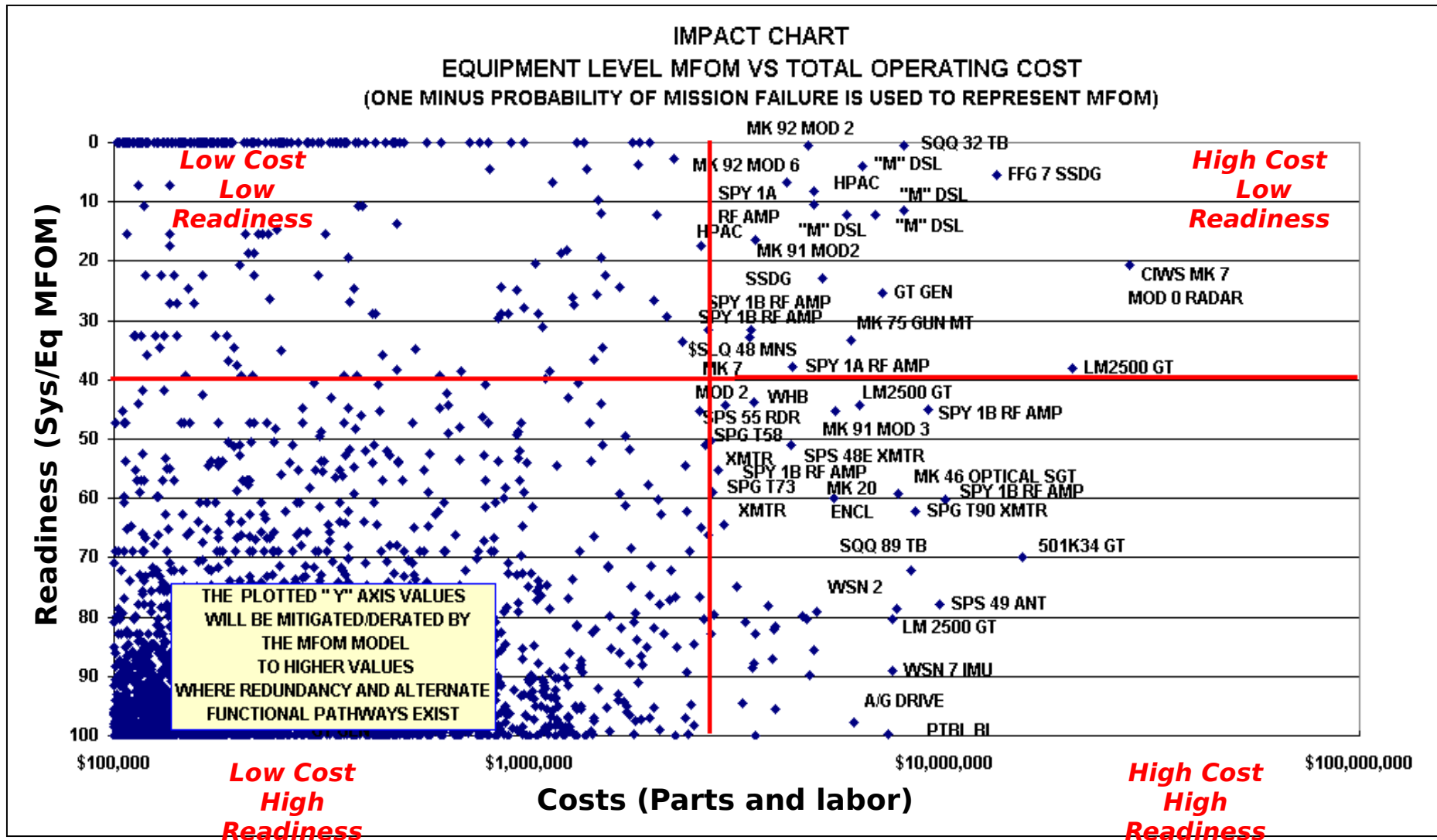- Track Object Deficiencies when an Item Moves to Different Commands

**Within A
PDM/ERP Collaborative Environment
With all Data Associations
linked by the UII within the FIN**

Configuration Data

Modernization Data

Maintenance Data

Procurement Data

Logistics Support Data

United States Fleet Forces
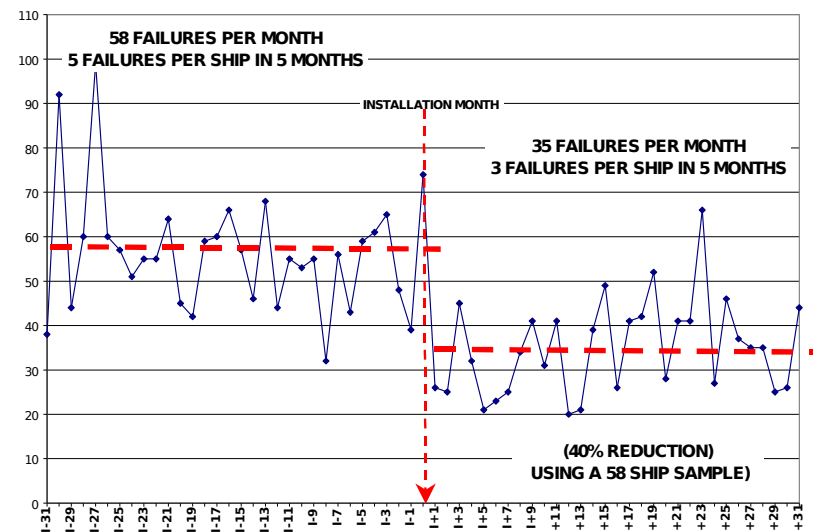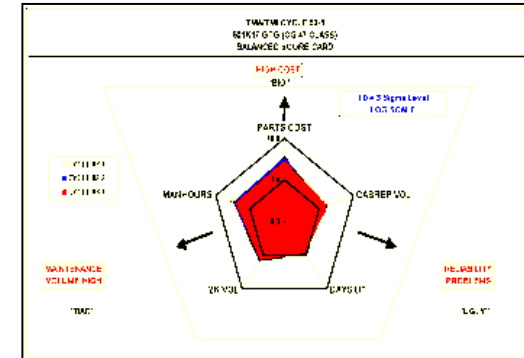
Ready Fleet ... Global Reach

Benefits of IUID to End Users

- **Better documentation of material deficiency**

  - – More accurate reporting of maintenance problems and their impact on readiness

- **Reduces (using the 2D bar code) the time to document maintenance deficiencies**

- **Progressively improves configuration data**

- **Allows item management as equipment is moved to new units**

- **Allows material history to be maintained for the life of the item**

- **Allows specific items that are "lemons" to be purged from the system thereby reducing maintenance costs in the long run**

IMPACT CHART
EQUIPMENT LEVEL MFOM VS TOTAL OPERATING COST
(ONE MINUS PROBABILITY OF MISSION FAILURE IS USED TO REPRESENT MFOM)

Solution Decision and Results

version 2.2

SHIP MODEL UPDATE NEWS

SECURITY LEVEL
UNCLASSIFIED

M FOM
RIGHT MAINTENANCE. RIGHT TIME. RIGHT COST.

MY PROFILE : HELP DESK : FAQs : UTILITIES : SEARCH : LOGOUT : ADMINISTRATOR SCREEN

x/xx/xxxx

Regional Maintenance Center Tools ▶ Static : Dynamic : NTA Matrices | Availability Impact | Financial

Static Index Matrix

Printer Friendly

Scenario: **Deployment**

	MFOM	ASU	C2W	CCC	FSO	INT	LOG	MIW	MOB	NCO
MCM 1	0.93	0.92	1.00	0.97	0.99	0.99	0.97	0.64	0.89	1.00
MCM 10	0.71	0.73	0.84	0.71	0.77	0.95	0.98	0.10	0.27	1.00
MCM 11	0.83	0.92	0.91	0.82	0.94	0.91	1.00	0.23	0.74	1.00
MCM 12	0.93	0.99	1.00	1.00	0.98	1.00	1.00	0.45	0.92	1.00
MCM 13	0.92	0.98	0.99	0.89	1.00	1.00	1.00	0.65	0.73	1.00
MCM 14	0.86	0.90	0.92	0.89	0.89	1.00	0.97	0.50	0.73	0.99
MCM 2	0.86	0.93	0.94	0.94	0.92	0.97	0.93	0.40	0.72	1.00
MCM 3	0.72	0.89	0.94	0.96	0.76	0.99	0.95	0.00	0.00	0.99
MCM 4	0.88	0.95	0.96	0.99	1.00	0.99	1.00	0.44	0.62	1.00
MCM 5	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MCM 6	0.62	0.84	0.63	0.44	0.81	0.94	0.89	0.00	0.00	0.98
MCM 7	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MCM 8	0.82	0.90	0.96	0.85	0.97	0.99	0.98	0.17	0.50	1.00
MCM 9	0.72	0.88	0.93	0.88	0.91	0.98	0.90	0.00	0.00	0.98

Set Default | Developed by NSWC Corona Division

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Level of Indenture

Warfare Area			
NTA (A)	(B)	(C)	(D)

SYSTEM (AA) — (AB)

Sub System (AAA)

COMPONENT (AAAA) — (AAAD), (AAAB), (AAAC)

Sub Component (AAAAB), Sub Component (AAAAA)

Lower Sub-Component (AAAAAA)

PART

PIECE

Lower Sub-Component (AAAAAB)

WARFARE AREA

NTAs

SYSTEM

SUB-SYSTEM

COMPONENT

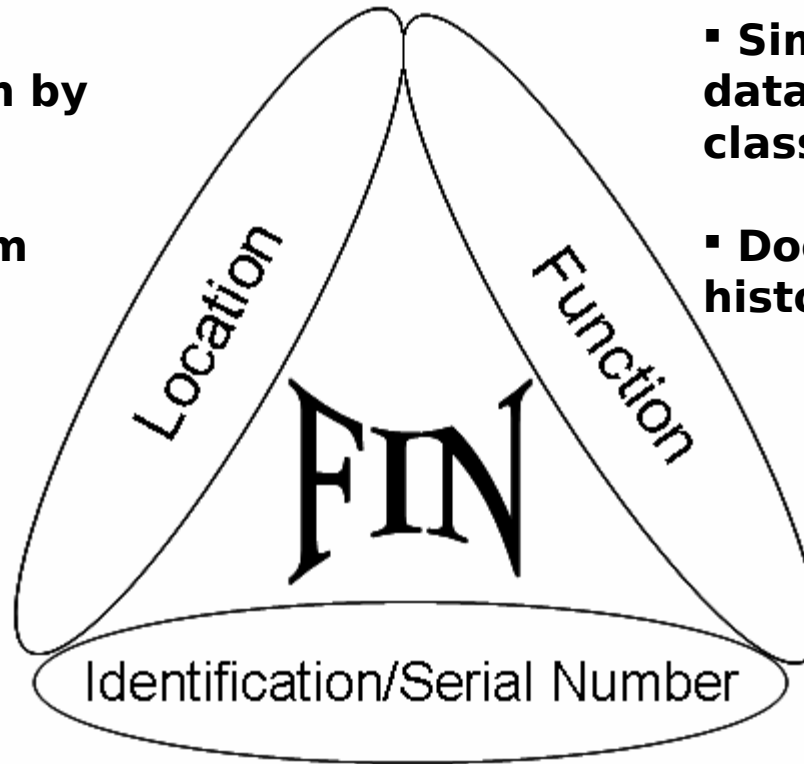**SUB-COMPONENT**

Lower SUB-COMPONENT

Part

Piece

FIN
(Location)(Function)(ID)

Functional Index Number (FIN):
An alpha/numeric value assigned to all items in the model.

▪ **Uniquely identifies every shipboard item by function**

▪ **Identifies same item across ship classes**

▪ **Simplifies retrieving data across ship classes**

▪ **Documents material history**

Location:
Compartment Number, Compartment Name, or XYZ Coordinates

Function:
Defines the operational contribution, action, purpose or activity of an object.

Identification/Serial Number:
Applies an Item Unique Identifier to an object.
Can be composed of an IUID or Material Identification Number.

MFOM Program

- DoDINST 5000 compliant ACAT IV → III
- DITPRDON compliant (21695)
- DADMS compliant (35265)
- Registered as an Authoritative Data Source in DADMS
- NITESTAR compliant (FOMLNTF)
- ATOs (10 ATOs in-place; 3 working)
- PPL/SSIL compliant for shipboard products
- FAM compliant (Logistics)
- SCD compliant for shipboard products
- CMMI level 3 (in process)

Milestone Decision Authority

RADM Clarke Orzalli

Program Manager

Deputy Program Manager

| Data Quality | Model Quality | Software Architect | Shipboard Installation | Training | Documentation | Information Assurance |